

# Nutritional Knowledge and Nutritional Practices of DIII Collegiate Dancers

Tori M. Grootwassink and Amy Olson, PhD, RD, LD  
College of Saint Benedict/Saint John's University Nutrition Department



## Introduction

- Professional ballet dancers on average weigh 10 to 20% below ideal weight<sup>1</sup>
- The NCAA does not monitor collegiate dance teams, so body weight and nutritional practices of collegiate dancers is relatively unknown

## Purpose

- Determine collegiate dancers' risk for developing an eating disorder and assess nutritional misconceptions of dancers

## Methods

- Approval from IRB was obtained and participants completed an informed consent
- 25 DIII female dance team members completed an electronic survey that was distributed via email and included questions from the EAT-26 (eating disorder risk), questions to assess nutritional knowledge, and the ASA-24 electronic 24-hour dietary recall
- Bivariate correlation tests and unpaired t-tests were conducted with SPSS

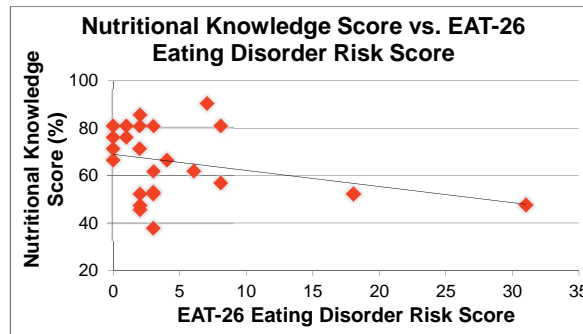


Figure 1. EAT-26 Eating Disorder risk based on nutritional knowledge score ( $r = -0.307$ ,  $p = 0.068$ ,  $n = 25$ ).

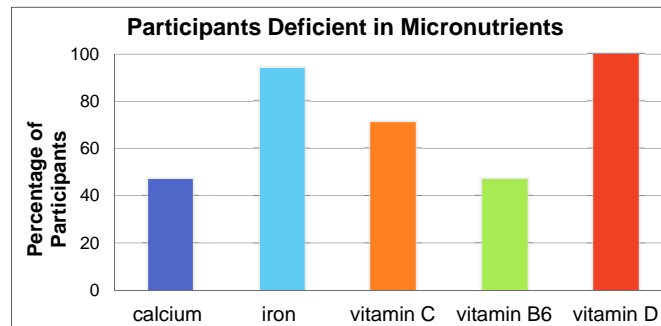


Figure 2. Percentage of participants deficient in micronutrients important for athletic performance.

Table 1. RDA recommendations, recommendations for dancers and dietary intakes. Recommendations based on 19-24 year old 120lb, female.

	RDA	Recommendations for Dancers	Dietary Intake
kcal	2000	---	1750 +/- 630
Protein (g)	46	65.3- 92.5	61.5 +/- 26
Carbohydrates (g)	130	163-227	217 +/- 71
Fat (%)	20-35	20-35	32 +/- 9

## Results

- BMI averaged 21.7 +/- 3.1 ( $n = 24$ )
- EAT-26 scores averaged 4.56 +/- 6.7 indicating a low risk for an eating disorder ( $n = 25$ )
- One dancer indicated a high risk with an EAT-26 score of 31
- Participants ( $n = 25$ ) scored, on average, 66% on the nutritional knowledge questionnaire
- Those who had taken a nutrition course scored significantly higher, 76% ( $t = 2.37$ ,  $p = 0.0266$ ,  $df = 23$ )

## Conclusion

- Diets seemed to meet most RDA recommendations on average, but intakes varied extremely
- 41% failed to meet at least 50% of the RDA for more than one nutrient
- Improving nutritional knowledge in DIII collegiate dancers could decrease eating disorder risk

## Literature Cited

<sup>1</sup>Doyle-Lucas, A. F., & Davy, B. M. (2011). Development and evaluation of an education intervention program for pre-professional adolescent ballet dancers: Nutrition for optimal performance. *Journal of Dance Medicine & Science*, 15(2), 65-75.

## Acknowledgments

- Thank you to the College of St. Benedict Dance Team for their cooperation and participation in this study, and Ben Faber for his help as a statistical consult